O.I.P.E. JUN 22 2006 PATENT & TRADEMARK OFFICE

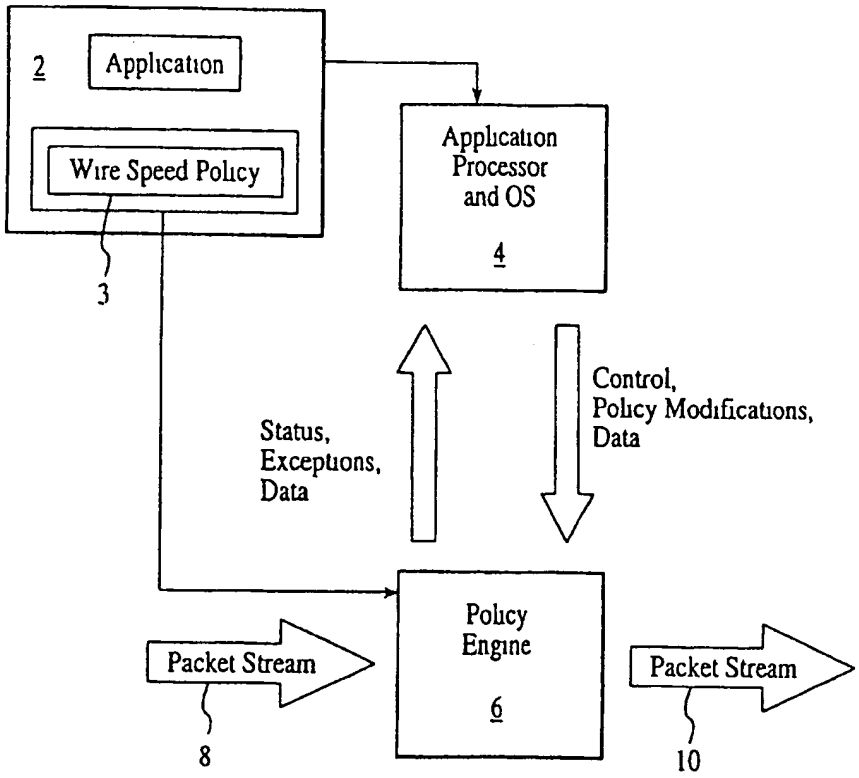

FIG. 1

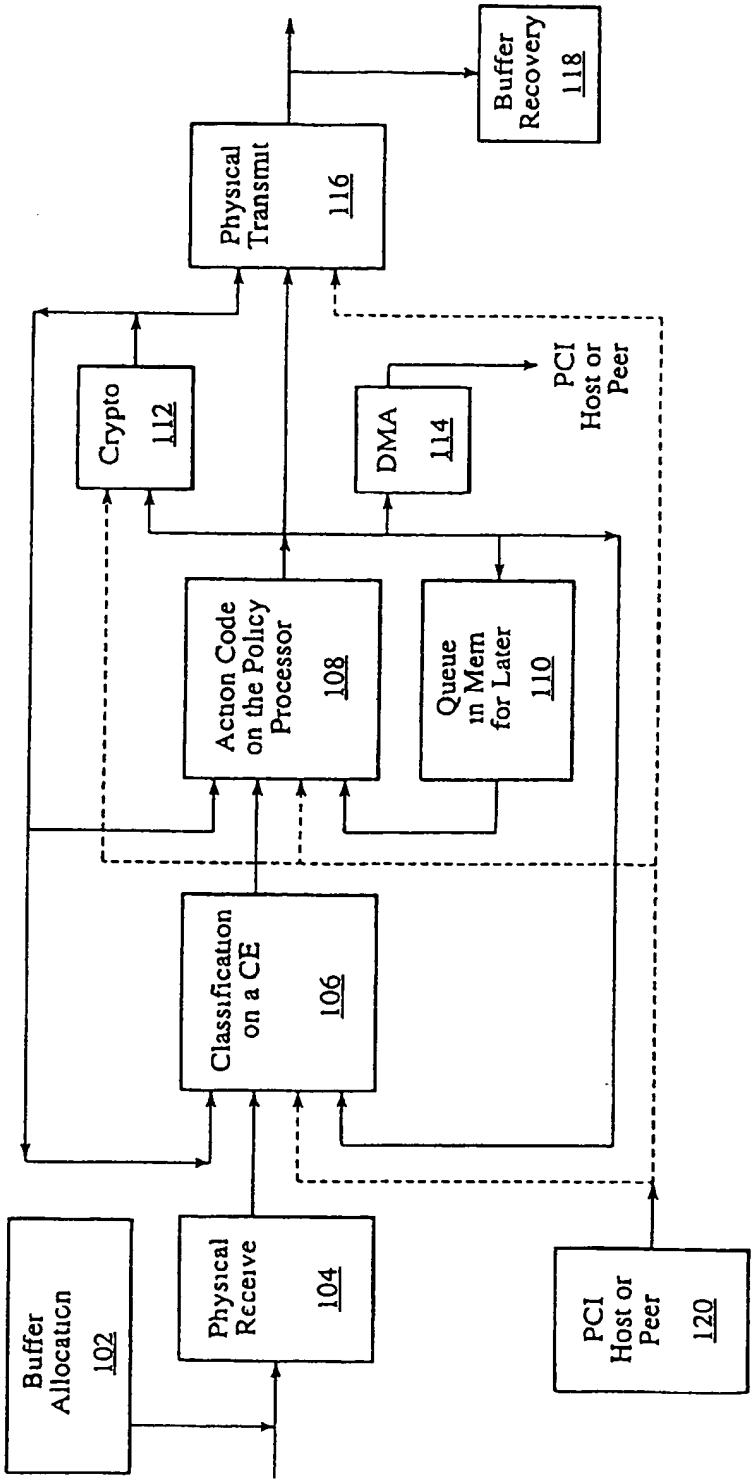
Buffer Recovery 118
Physical Transmit 116
PCI Host or Peer
Crypto 112
DMA 114
Action Code on the Policy Processor 108
Queue in Mem for Later 110
Classification on a CE 106
Buffer Allocation 102
Physical Receive 104
PCI Host or Peer 120

FIG. 2

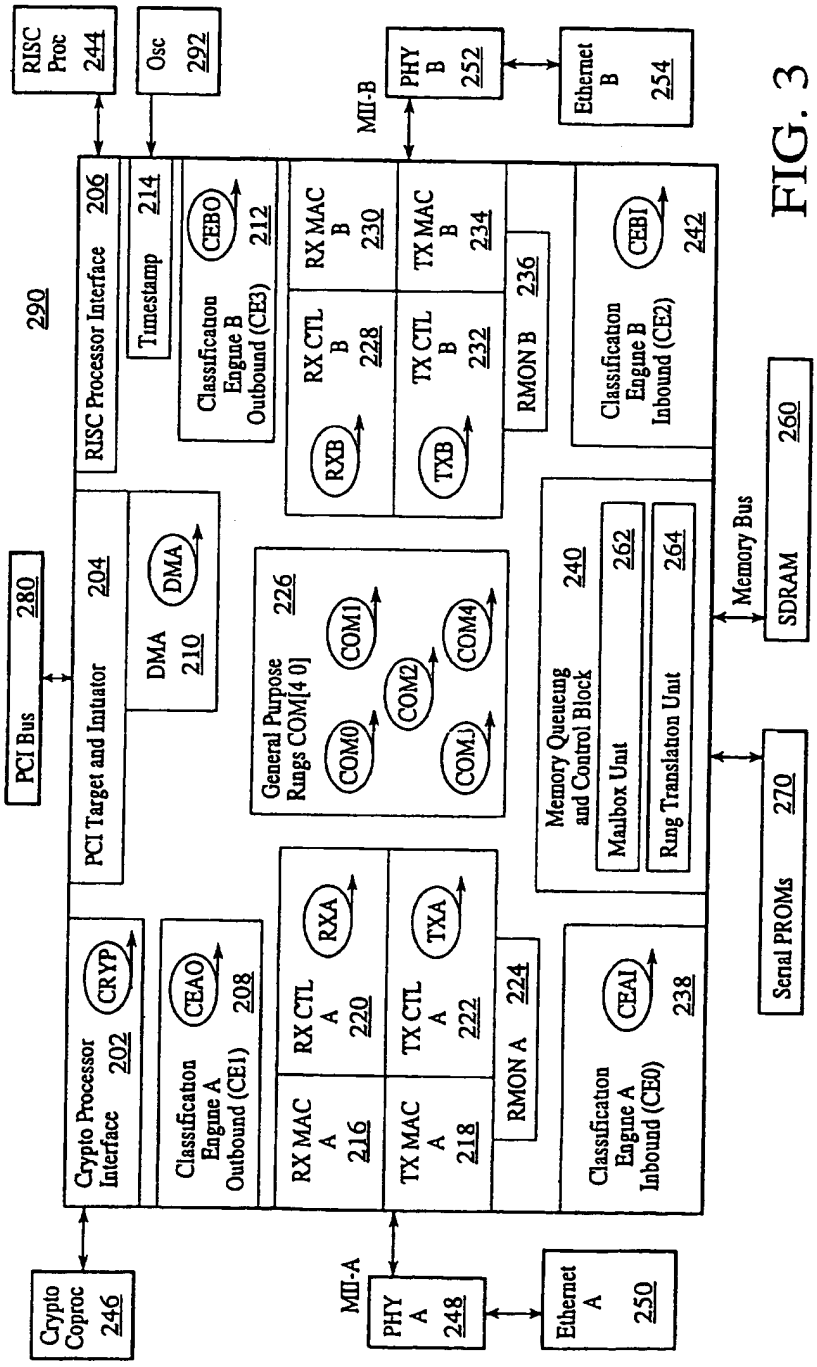
RISC Proc 244
Osc 292
MII-B
PHY B 252
Ethernet B 254
290
RISC Processor Interface 206
Timestamp 214
Classification Engine B Outbound (CE3) 212
CEBO
RX MAC B 230
RX CTL B 228
RXB
TX MAC B 234
TX CTL B 232
TXB
RMON B 236
Classification Engine B Inbound (CE2) 242
CEBI
PCI Bus 280
PCI Target and Initiator 204
DMA 210
DMA
General Purpose Rings COM[4 0] 226
COM0
COM1
COM2
COM3
COM4
Memory Queueing and Control Block 240
Mailbox Unit 262
Ring Translation Unit 264
Memory Bus
SDRAM 260
Serial PROMs 270
Crypto Processor Interface 202
CRYP
Classification Engine A Outbound (CE1) 208
CEAO
RX MAC A 216
RX CTL A 220
RXA
TX MAC A 218
TX CTL A 222
TXA
RMON A 224
Classification Engine A Inbound (CE0) 238
CEAI
Crypto Coproc 246
MII-A
PHY A 248
Ethernet A 250

FIG. 3

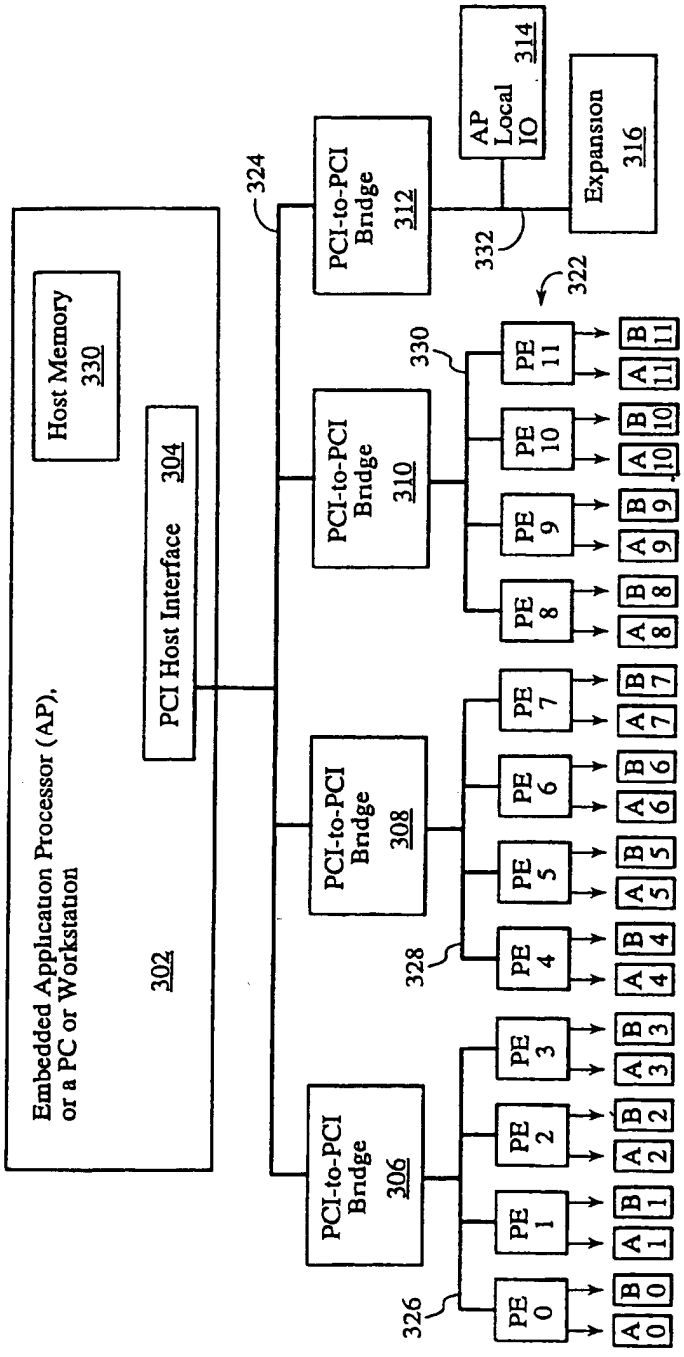
Embedded Application Processor (AP), or a PC or Workstation
302
Host Memory 330
PCI Host Interface 304
PCI-to-PCI Bridge 306
PCI-to-PCI Bridge 308
PCI-to-PCI Bridge 310
PCI-to-PCI Bridge 312
AP Local IO 314
Expansion 316
324
332
322
330
328
326
PE 0
PE 1
PE 2
PE 3
PE 4
PE 5
PE 6
PE 7
PE 8
PE 9
PE 10
PE 11
A 0
B 0
A 1
B 1
A 2
B 2
A 3
B 3
A 4
B 4
A 5
B 5
A 6
B 6
A 7
B 7
A 8
B 8
A 9
B 9
A 10
B 10
A 11
B 11
Ethernet Ports 320

FIG. 4

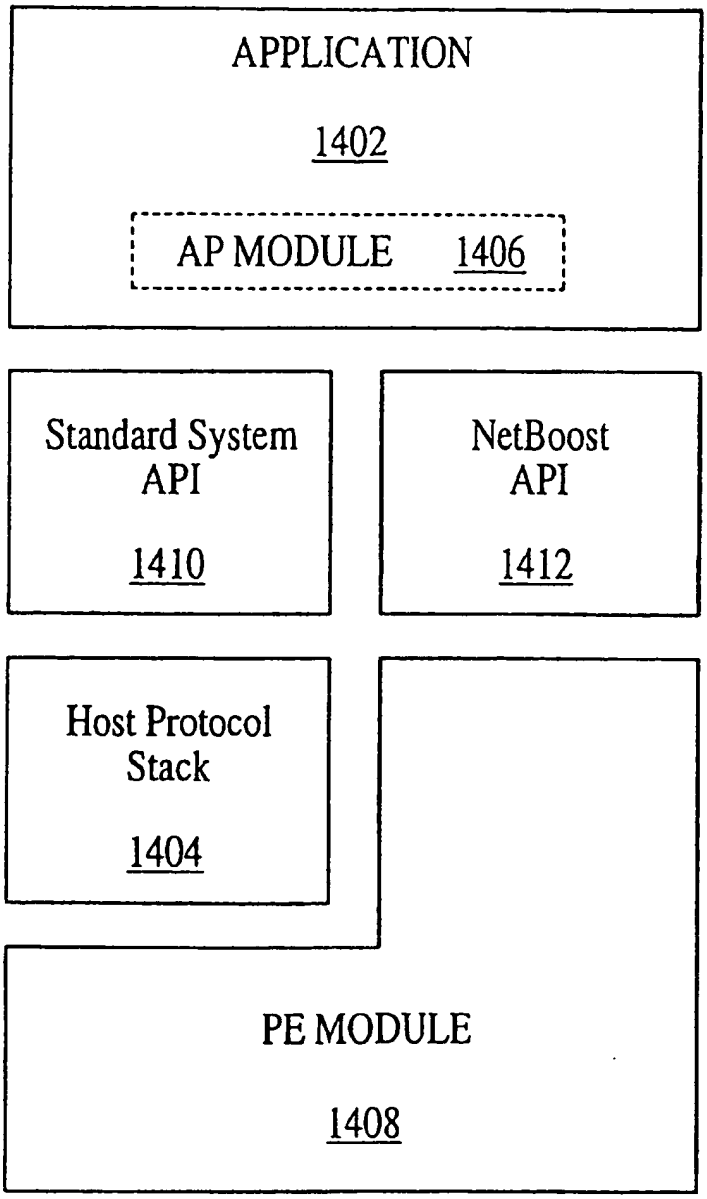
APPLICATION
1402
AP MODULE 1406
Standard System API
1410
NetBoost API
1412
Host Protocol Stack
1404
PE MODULE
1408

FIG. 5

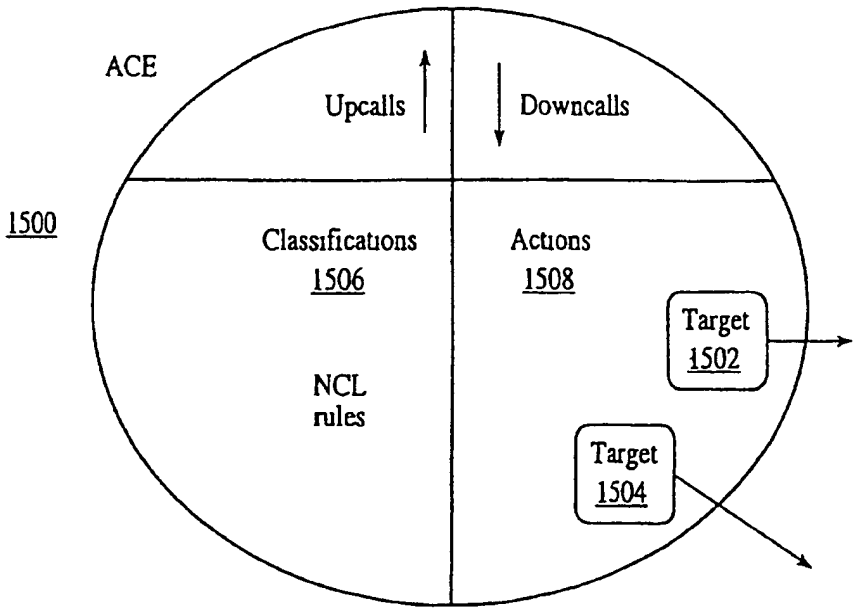
ACE
Upcalls
Downcalls
1500
Classifications
1506
Actions
1508
Target
1502
NCL
rules
Target
1504

FIG. 6

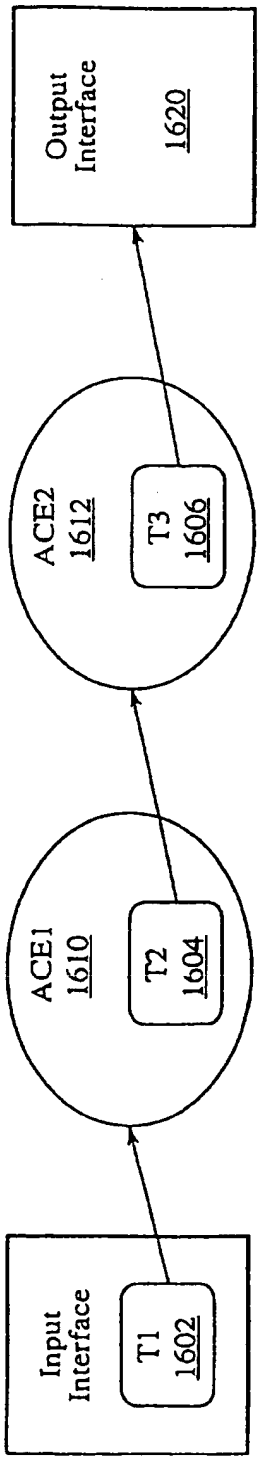
Output Interface
1620
ACE2
1612
T3
1606
ACE1
1610
T2
1604
Input Interface
T1
1602

FIG. 7

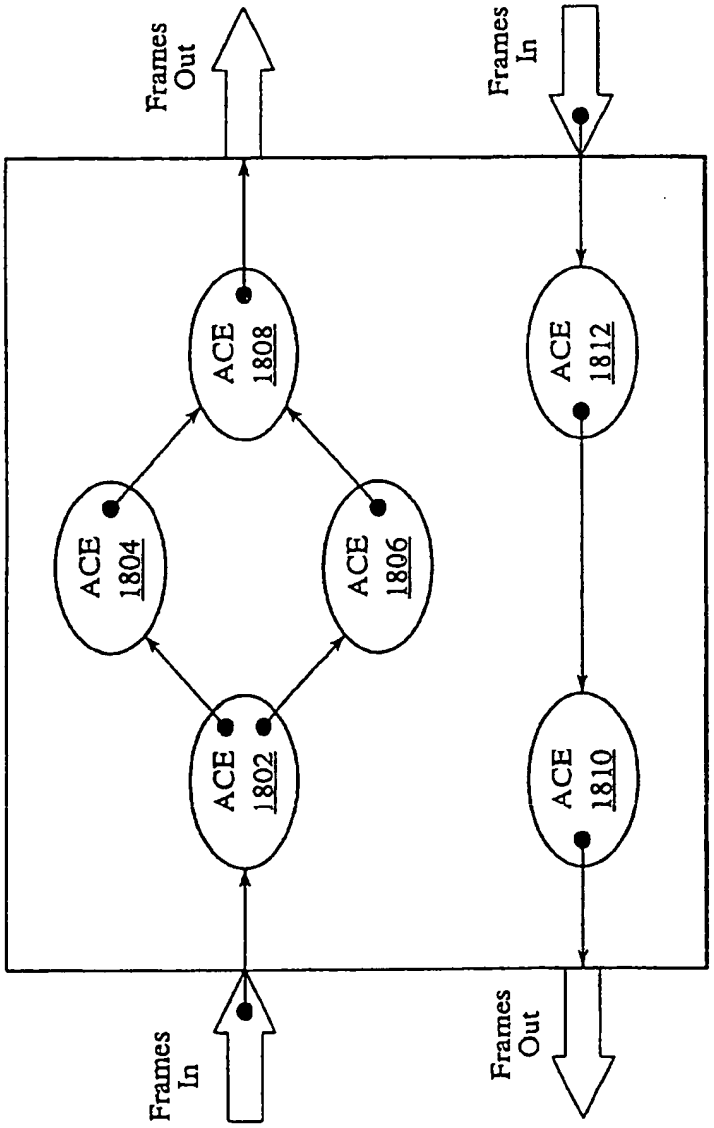
Frames Out
Frames In
ACE 1808
ACE 1812
ACE 1804
ACE 1806
ACE 1802
ACE 1810
Frames In
Frames Out

FIG. 8

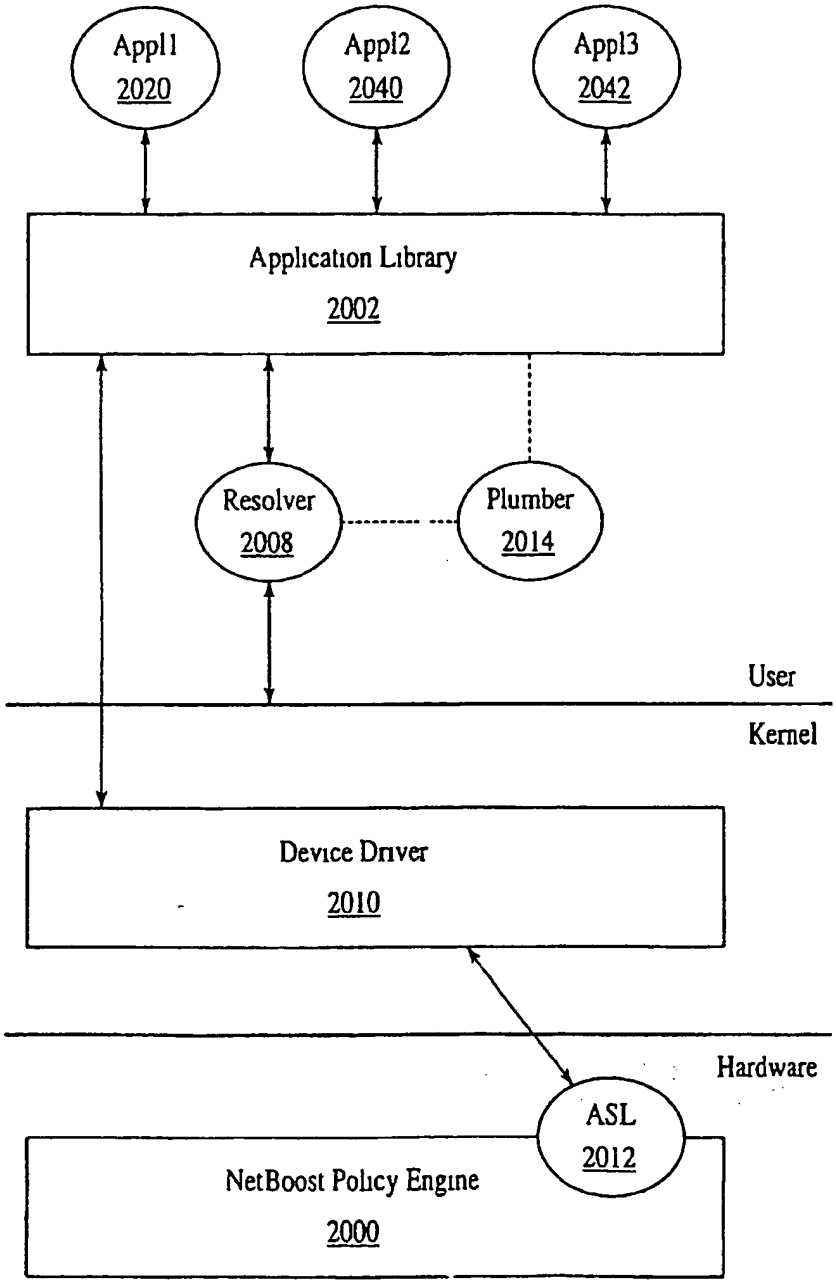
Appl1
2020
Appl2
2040
Appl3
2042
Application Library
2002
Resolver
2008
Plumber
2014
User
Kernel
Device Driver
2010
Hardware
ASL
2012
NetBoost Policy Engine
2000

FIG. 9